

CONTEXT SWITCHING PIPELINED MICROPROCESSOR

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ABSTRACT

10 A single shared processing path is used as contexts are
switched during processing. Each unique context is
processed using a corresponding unique pipeline. If a
pipeline that is executing under one context stalls,
processing is switched in the shared processing path to
another pipeline that is executing under second context.
15 New pipelines are enabled for execution by borrowing a clock
cycle from the currently executing pipeline. In some cases
contexts are assigned various relative priority levels. In
one case a context switching microprocessor is used in a
communication engine portion of a system-on-a-chip
communication system.

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